Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

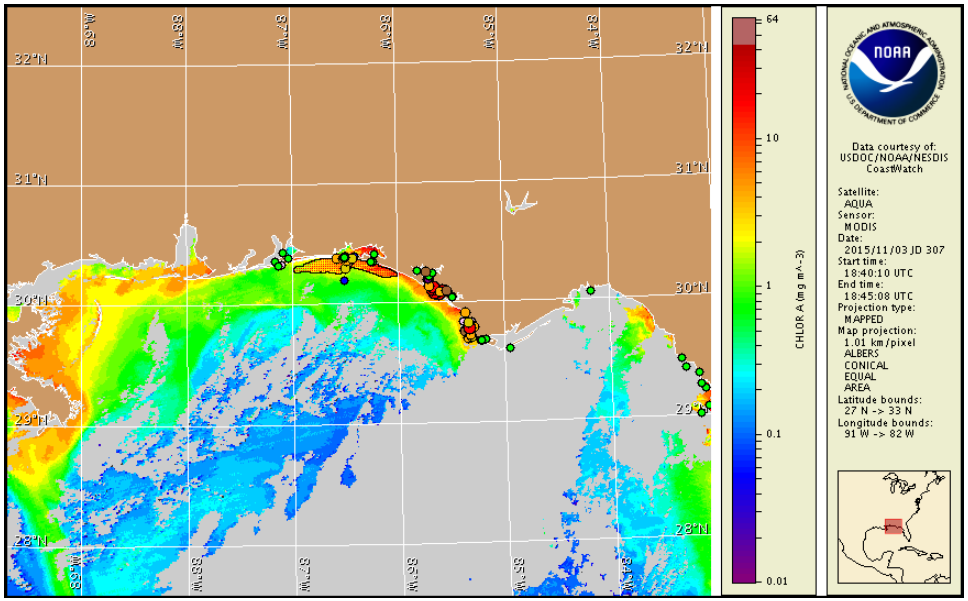
Thursday, 05 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 2, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 26 to November 4: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information for Florida can be obtained through FWC Fish and Wildlife Research Institute at:

http://myfwc.com/redtidestatus

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of northwest Florida from Escambia to Gulf counties. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for alongshore northwest Florida Thursday, November 5 to Monday, November 9 is listed below:

County Region: Forecast (Duration)
Escambia County: Moderate (Th-Sa), Very Low (Su-M)
Santa Rosa County: Moderate (Th-Sa), Very Low (Su-M)
Okaloosa County: Moderate (Th-Sa), Very Low (Su-M)
Okaloosa County, bay regions: Moderate (Th-Sa), High (Su-M)
Walton County: Moderate (Th-Sa), Very Low (Su-M)
Bay County: Very Low (Th, Su-M), Moderate (F-Sa)
Bay County, bay regions: High (Th-M)
Gulf County: Very Low (Th-M)
Gulf County, west bay regions-St. Joseph Bay area: High (Th-M)
All Other NWFL County Regions: None expected (Th-M)
SWFL County Regions: Visit http://tidesandcurrents.noaa.gov/hab/#swfl

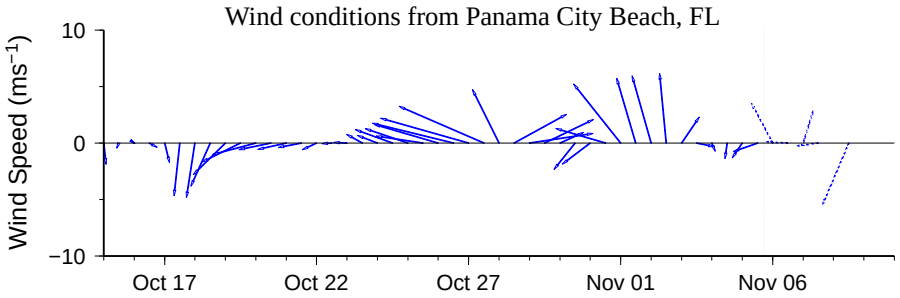
Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Respiratory irritation and dead fish have been reported from Escambia, Okaloosa, and Walton counties.

Analysis

Recent samples collected over the past week alongshore northwest Florida continue to identify background to 'high' *Karenia brevis* concentrations alongshore Escambia to Gulf counties, with the highest concentrations identified in St. Joseph Bay of Gulf County (FWRI; 10/31-11/3). Reports of respiratory irritation and fish kills continue to be reported from alongshore Pensacola Beach in Escambia County where sampling on 11/3 indicated *K. brevis* was not present, additional sampling of this region is recommended (FWRI, MML; 11/2-11/5). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus. Reports of dead fish and respiratory irritation have been received from Escambia, Okaloosa, and Walton counties this week (FWRI, MML; 11/2-11/5).

In recent ensemble imagery (MODIS Aqua, 11/3), patches of elevated to very high chlorophyll (2 to >20 μg/L) with the optical characteristics of *K. brevis* are visible along- and offshore northwest Florida from Escambia to Bay County. This feature extends up to 9 miles offshore and as far west as Pensacola Beach where respiratory irritation and fish kills have been reported.

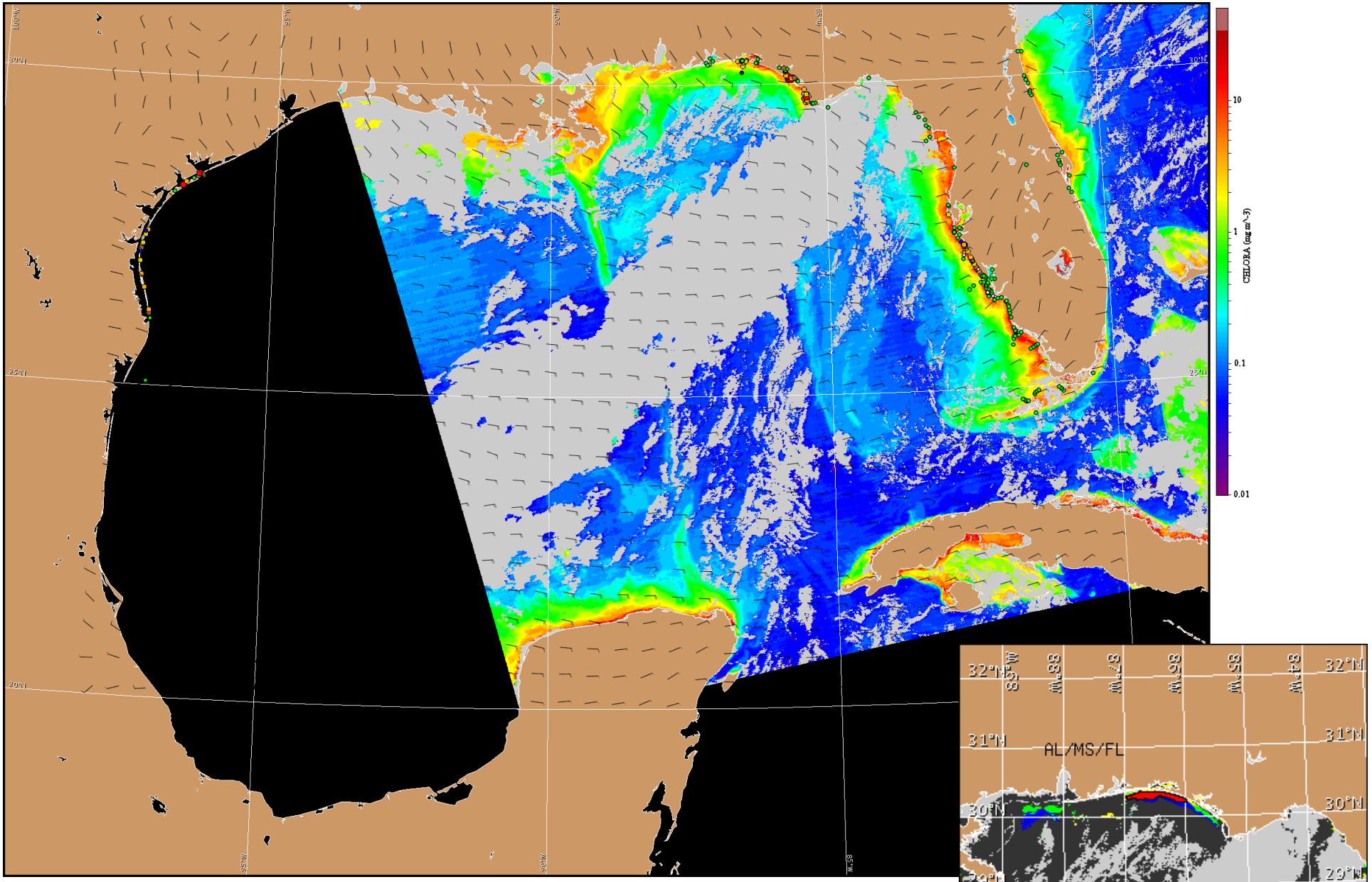
East to southeast winds forecast today through Sunday may minimize the westward transport of *K. brevis* concentrations in northwest Florida and will be unfavorable for intensification of *K. brevis* at the coast. - Davis, Lalime



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Escambia to Taylor counties: East to southeast winds (5-10kn, 3-5m/s) today through Saturday becoming northeast winds (10kn, 5m/s) Saturday evening. East winds (15kn, 7m/s) Sunday. Northeast winds (15kn) Monday.



Satellite chlorophyll image and forecast winds for November 6, 2015 12Z with points representing cell concentration sampling data from October 26 to November 4: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).